

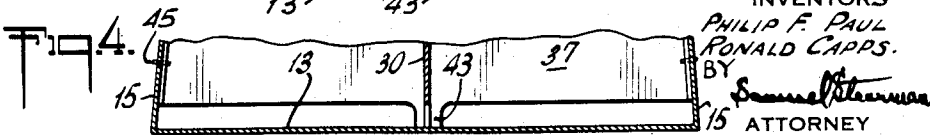
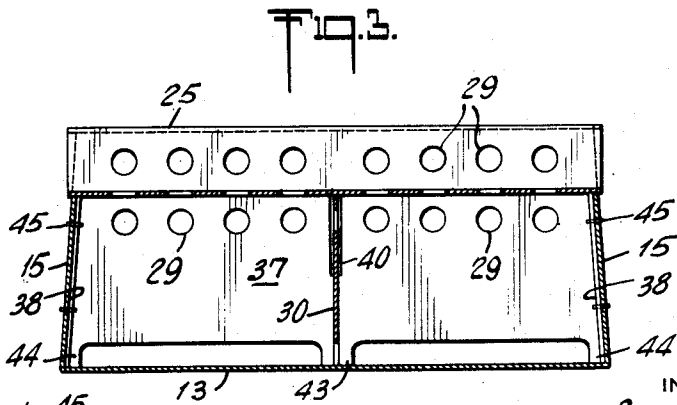
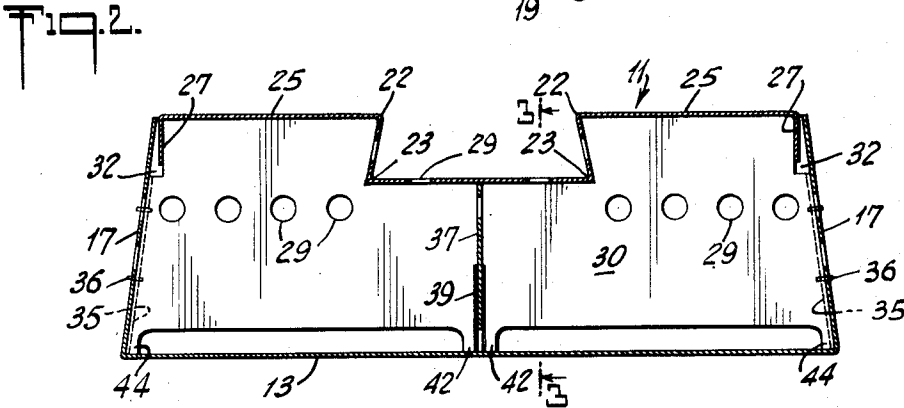
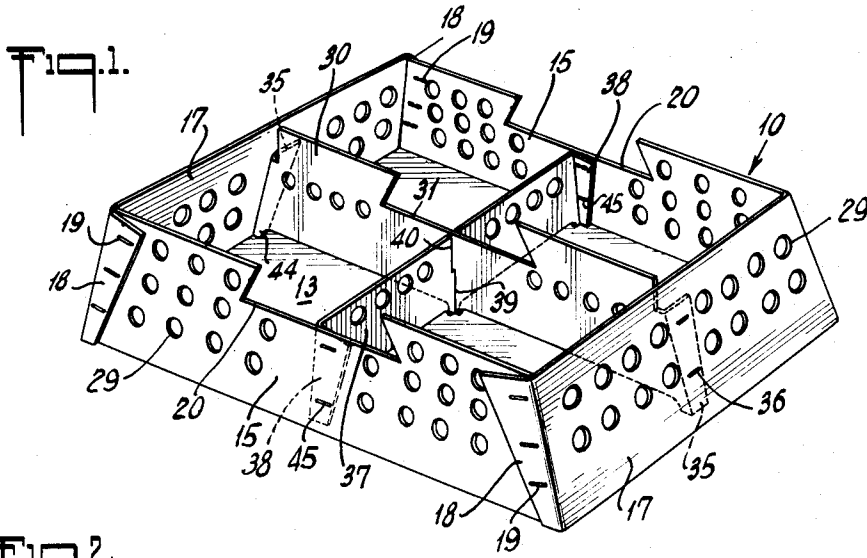
Oct. 28, 1952

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2,615,611

CHICK SHIPPING CONTAINER

Filed April 19, 1949



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2,615,611

CHICK SHIPPING CONTAINER

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Application April 19, 1949, Serial No. 38,462

2 Claims. (Cl. 229-15)

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The invention relates to containers for shipping baby chicks and more particularly to such containers constructed of corrugated board, solid fiber board or the like.

Chick shipping containers of this type are generally constructed with crossed partitions extending through the body portion of the container to sub-divide the latter into compartments, the ends of partitions being generally secured to or held in engagement with opposite walls of the body portion. Consequently, when the container is lifted, the bottom of the container, especially under the load of the chicks contained therein, sags away from the partitions, leaving a space below the bottom edges of the partitions. The sag that is thus developed increases towards the center of the box, and so long as this sag remains the chicks are able to get their toes into the space formed thereby below the partitions. When the box is set down, and the partition again bears against the bottom of the box, any chick's toes that were under the partition during the interval when the bottom was sagged down and which were not removed by the time the partition again bears against the bottom, become pinched therebetween. The chicks in their struggle to free themselves, either break their legs or otherwise injure themselves so that they become or have to be destroyed.

The principal object of the invention is to provide a shipping container for baby chicks in which the crossed partitions are constructed so as to prevent the possibility of the chicks having their toes pinched between the bottom edges of the partitions and the surface of the bottom member of the container.

Various proposals have heretofore been made for constructing chick shipping boxes in a manner to avoid such injury to the chicks caused by the sagging of the box bottom. Reference is made in this connection to Patents 2,190,399 and 2,280,544 showing constructions in which the partitions are formed to maintain contact at all times with the box bottom independently of sagging of the latter; Patent 2,312,846 showing a construction in which the partition is locked to the box bottom in a manner to prevent bowing of the latter or relative upward movement of the partitions; and Patent 2,134,051 showing a construction in which the partitions are arranged for vertical "floating" movement and are also formed with a series of spaced notches along their lower edges. None of these prior proposals, however, has proved entirely satisfactory, either because of unsatisfactory performance or because they entail constructions which are undesirable from a manufacturing, use or cost standpoint.

It is a more specific object of the invention to provide a chick shipping box constructed to prevent chick toe pinching and yet free of the objections or defects attending the toe pinch preventing means heretofore proposed.

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Other objects of the invention will appear more fully from the detailed description herein and from the drawings, in which:

Fig. 1 is a view in perspective, showing one form of chick shipping container embodying the invention, omitting the cover therefrom.

Fig. 2 is a view in cross-section through the container and showing the cover in place.

Fig. 3 is a similar view taken along line 3-3 of Fig. 2.

Fig. 4 is a fragmentary view showing another embodiment of the invention.

Although the invention may be embodied in various forms of chick shipping containers, I have chosen to illustrate and describe it herein as embodied in a container of the channel vented type shown in the patent to Brunt No. 2,195,236.

As shown, this form of container comprises a box body portion indicated generally by the numeral 10, and a cover portion indicated generally by the numeral 11, each made of corrugated board, solid fiber board or the like.

The body portion 10 comprises a bottom member 13, integral side walls 15 and end walls 17 extending upwardly therefrom. One of these pairs of walls, e. g., the end walls 17 may be provided with flaps 18 at each end thereof extending around the adjacent ends of the other pair of walls and being secured thereto as by fasteners 19.

The side walls 15 are each provided centrally of the upper portions thereof with recesses 20 of trapezoidal shape.

The cover member 11 is provided with spaced parallel scores or creases 22 and intervening spaced parallel reverse scores 23, to form a channel portion to be received within the trapezoidal recesses 20 of the side walls, for holding the cover in engagement with the body portion, while at the same time permitting each of the laterally extending portions 25 to be independently articulated about the scored lines 22 and 23 for access to the interior of the box. Preferably, also, the cover is provided at opposite ends thereof with flaps 27 to hold portions 25 in closed position.

As shown in the drawings, this form of box has the side walls and the end walls thereof extending upwardly from the bottom member 13 at an angle somewhat less than 90°, to provide a space between the walls of adjacent boxes when stacked in storage or shipment to permit circulation of air therearound. The walls of the box as well as the cover, as is customary, are provided with cut-outs to provide ventilating openings indicated at 29, some or all of which may be left in the board without being knocked out until the box is loaded with chicks for shipment.

The box is provided with crossed partitions intersecting one another substantially at the mid point of the box. One of these partitions, indicated at 30, is formed centrally along its upper edge with a trapezoidal recess 31, in alignment with the recesses 20 in the side walls 15, to re-

ceive and support the mid section of the cover, and with notches 32 at opposite ends thereof. The reduced end portions or integral flanges 35 are bent or folded into engagement with the end walls 17, and may be secured thereto as by stitching or stapling 36. The notches 32 are thus arranged to receive the flaps 27 of the cover. The other partition 37 is formed at its ends with angularly positioned flaps 38 which may be secured to the side walls 15 as by staples 45. The partition 30 is formed with a central vertical slot 39 extending upwardly from the bottom thereof to receive partition 37, while the latter is formed with a central vertical slot 40 extending downwardly from the upper edge thereof to receive the partition 30. As illustrated at Figs. 2 and 3, the opening below the partition is about 10% of the height of the box.

According to the invention, the lower edges of the partitions, substantially throughout the entire length thereof, are spaced upwardly a distance from the upper surface of the bottom member 13 substantially greater than the maximum sag to which the bottom member may be subjected when the loaded box is lifted. By thus spacing the lower edges of the partitions a distance, say, approximately one-half inch above the bottom member 13, these edges are at all times sufficiently distant from the bottom member, so that when the latter is subjected to any sagging action, its return to normal position will nevertheless leave a substantial space below the bottom edges of the partitions. Thus, the chicks are at all times free to extend their toes underneath the partition without danger of having them seized or pinched between the partitions and the bottom of the box. At the same time, the height of the space is sufficiently small to prevent the chicks from moving from one compartment to another.

As illustrated in Figs. 1-3, the partition 30 is provided at opposite sides of the slot 39 with narrow extensions 42, and the partition 37 is formed along the bottom thereof with a centrally extending tab 43, approximately twice the width of each of the extensions 42. The extensions 42 and tab 43 thus serve as bearing supports or legs for the partitions and cover at the mid-section of the box, viz, at the junction of the two partitions. Partitions 30 and 37 are also formed at each of their opposite ends with downwardly extending narrow tabs 44 of the same height and width as the extensions 42. By making the extensions 42 and tabs 43 sufficiently narrow, say, not more than approximately one inch in width, the corners formed at the junction of the two partitions will be sufficiently small to prevent a chick from getting close enough to the partition at these points to enable its toes to be positioned under the lower edges of these extensions and tabs when the bottom of the box becomes sagged.

Similarly, by making the tabs 44 likewise narrow, the corners formed at the points where the ends of the partitions are secured to the walls of the box, will likewise prevent the chicks from getting close enough to the ends of the partitions to enable their toes to be positioned under these tabs in the event of any sagging of the bottom at these areas.

Where the ends of the partitions are securely fastened to the walls of the box at the flaps 35, 38, as by means of rivets 36, 45, movement of the partition and the cover at these points may

be sufficiently slight to permit, in certain cases, omission of the downwardly extending tabs 44 from the partitions. This embodiment of the invention is illustrated in Fig. 4. As there shown, the bottoms of the partitions are spaced above bottom member 13 entirely thereacross from the extensions 42, 43 to the walls 15, 17. This embodiment also allows additional cross ventilation for any chicks that may find themselves crowded into the corners formed at the points where the ends of the partitions are joined to the walls 15, 17.

It will be seen, therefore, that according to the invention, the partitions are so dimensioned and arranged in the box as to provide at all times sufficient distance between the partitions and the box bottom to enable the chicks freely to place their toes underneath the partitions and withdraw them therefrom, irrespective of the sagging and subsequent return of the box bottom to normal position. In this way, pinching of the toes of the chicks is entirely avoided.

While the invention has been illustrated and described in conjunction with one particular type of chick shipping container, this is to be considered as illustrative and not restrictive, for as will be apparent, the invention is readily adaptable to other forms or types of chick shipping containers.

We claim:

1. In a chick box of flexible fiber board, a body portion comprising a body member, upwardly extending side and end walls, intersecting partition members extending between the side and end walls, each of said partition members having the lower edges thereof spaced from the bottom and extending upwardly to the top of the box and legs at the intersection only of the partitions between the lower edges thereof and the bottom member, and integral flanges on said partitions for attachment to said side and end walls.

2. In a chick box of flexible fiber board, a body portion comprising a body member, upwardly extending side and end walls, intersecting partition members extending between the side and end walls, each of said partition members having the lower edges thereof spaced from the bottom and extending upwardly to the top of the box and legs at the intersection only of the partitions between the lower edges thereof and the bottom member, and integral flanges on said partitions for attachment to said side and end walls, said end walls and partitions having recesses at the upper edges thereof forming a channel portion across the top of the box, said side and end walls and said partitions having ventilating holes therein.

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